

Catalogue of American Amphibians and Reptiles.

Magnusson, W.E. 1992. *Paleosuchus palpebrosus*.

***Paleosuchus palpebrosus* (Cuvier)
Cuvier's Dwarf Caiman**

Crocodylus palpebrosus var. 1 Cuvier, 1807:35. The type-locality is "Cayenne" and the collector is given as "Gautier". According to Vaillant (1898), Cuvier's description was based on specimen 7530 in the Museum National d'Histoire Naturelle, Paris, in which case that specimen is the holotype for the species (not examined by author). The specimen is still in the museum collection (Alain Dubois, pers. comm., 1986).

Crocodylus (Alligator) palpebrosus: Merrem 1820:35.

Jacaretinga moschifer Spix 1825:1. The holotype of *J. moschifer* from "Bahian (Salvador)" apparently was destroyed during World War II. However, the specimen had been identified as *Caiman palpebrosus* by Müller (Hoogmoed and Gruber, 1983). See Remarks.

Champsia palpebrosa: Wagler, 1830:140.

Alligator palpebrosus: Duméril and Bibron, 1836:67.

Champsia gibbiceps: Natterer, 1841:324.

Caiman palpebrosus: Gray, 1844:67.

Caiman (Aromosuchus) palpebrosus: Gray, 1862:330.

Jacaretinga palpebrosus: Vaillant, 1898:171.

Paleosuchus palpebrosus: Müller, 1924:441.

Crocodylus palpebrosus: Werner, 1933:35.

Paleosuchus palpebrosus: Campbell and Winterbotham, 1985:195.

Lapsus.

• **Content.** No subspecies are recognized.

• **Definition.** *Paleosuchus palpebrosus* is the smallest alligator-id; the maximum size of males is about 1.5 m and that of females about 1.2 m. The external mandibular foramen is narrower vertically than its distance to the inferior margin of the angular; two (rarely fewer) rows of enlarged occipital scutes present; more than two scutes in all rows of enlarged dorsal scutes present between the rear legs; most or all columns of lateral tail scutes are complete; three or more of the posterior double caudal crests meet at the midline of the tail; the enlarged scutes of the double caudal crests project vertically; dark pigmentation is at least as extensive as cream pigmentation on the ventral surface. Hatchlings have light yellow or brown cranial tables and brown heads. The whole head becomes dull brown with age. The body is dull grey-black except for the lower jaw which has lighter bars, the snout which may have a median black stripe, and the sides of the tail which have alternating light and dark bands or blotches.

• **Descriptions.** Descriptions were given by Tiedemann et al.

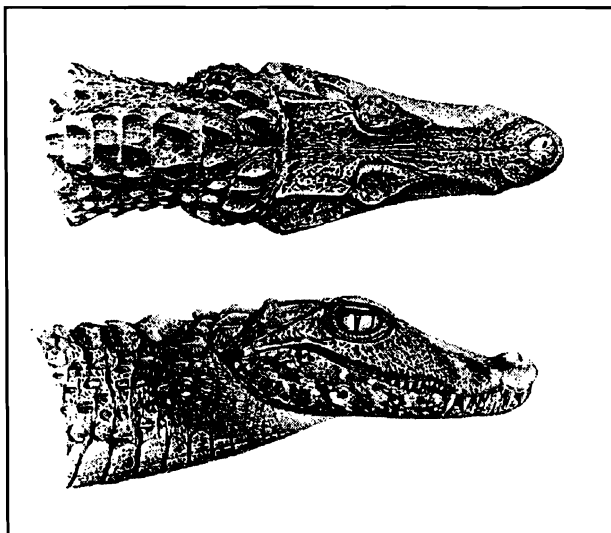
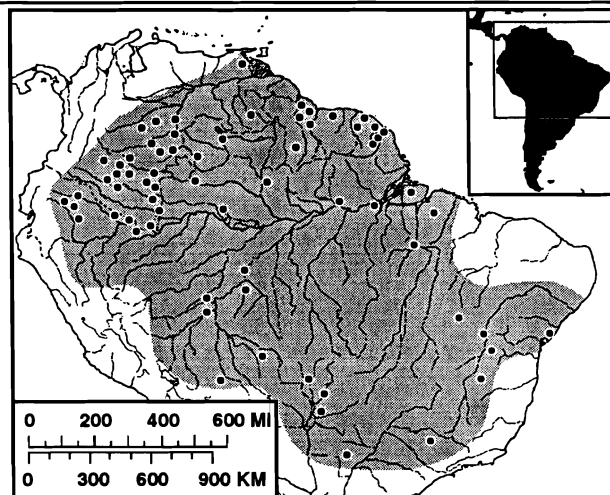


Figure 1. Head and neck of *Paleosuchus palpebrosus* (from Natterer, 1841).



Map. Distribution of *Paleosuchus palpebrosus*. The type-locality may be based on specimen(s) other than the type-specimen; therefore no location has been plotted. Solid symbols represent other known localities.

(1817), Natterer (1841), Schmidt (1928), Carvalho (1951), Wermuth (1953), Medem (1958, 1967, 1981, 1983), Brazaitis (1974), Wermuth and Fuchs (1983a), Magnusson (1989), and Ross and Magnusson (1989). Descriptions of commercial skins were given by King and Brazaitis (1971), Fuchs (1974), and Wermuth and Fuchs (1983b).

• **Illustrations.** Line drawings of scale patterns were given by Carvalho (1951), of heads and necks by Natterer (1841), and of skulls by Medem (1958, 1981). Ross and Mayer (1983) gave line drawings of the anterior dorsal armor. Medem (1981, 1983) presented black-and-white and color photographs of various age classes, and Webb et al. (1987) and Palmedo and Desmier (1989) presented color photographs of heads. Medem (1981) showed a black-and-white photograph of a nest. Mertens (1943) and Aoki (1982a,b) presented photographs of skulls.

• **Distribution.** *Paleosuchus palpebrosus* occurs throughout the Amazon and Orinoco basins and the coastal rivers between them. The distribution extends south across the Brazilian shield to the Rio Paraná and Rio Paraguay drainage basins and also into the Rio São Francisco drainage basin of the Brazilian states of Bahia and Minas Gerais (Medem, 1981, 1983). The species does not occur in the small forest streams that drain extensive tracts of rainforest (the principal habitat of *P. trigonatus*). However, these animals can be found in most other aquatic habitats, including flooded forest around the major rivers, savanna streams, and isolated lakes and channels (Magnusson, 1989). The references of Merrem (1820) and others to "Mexico" obviously are in error. The range of the species is extensive, the species has no commercial value, and no evidence exists of any but local reductions in population density. Therefore, the species is not of immediate conservation concern.

• **Fossil Record.** Romer (1956) refers to fossil *Paleosuchus* from the Pliocene and Recent of South America, but does not give the species. Steel (1973) does not mention records of fossil *Paleosuchus*.

• **Pertinent Literature.** Mook and Mook (1940) gave the most detailed account of the nomenclature of the species. Most of what is known of the biology of the species, including distribution, food habits, breeding in captivity and in the wild, and habitat preferences, is summarized in Medem (1971, 1981, 1983) and Magnusson (1989). More recent studies of habitat associations (Magnusson, 1985) and food habits (Magnusson et al., 1987) were undertaken in Brazil. Paolilla and Gorzula (1985) reported that *P. palpebrosus* is often found in small isolated water bodies, indicating extensive terrestrial movements. Mertens (1964) compared the head, body, and tail proportions of *P. palpebrosus* with those of other species of crocodilians.

• **Etymology.** The specific epithet derives from the Latin

palpebra, meaning eyelid. The literal translation of *palpebrosus* is "having prominent eyelids." However, as Cuvier (1807) used the common name "le caïman à paupières 'osseuses'," he possibly (though improbably) may have wished to indicate bony eyelids.

• **Remarks.** Medem (1967,1983) considered *Jacaretinga moschifer* to be a synonym of *P. trigonatus*, and he (1983) considered Seba's (1734) pl. 105, figs 3 and 4 to represent a *P. palpebrosus*. Those suggestions have not been followed here for reasons given by Magnusson (1992).

Less is known of the biology of *P. palpebrosus* than any other new world crocodilian. Until detailed studies are carried out, caution should be used when interpreting speculations in the literature.

Literature Cited

- Aoki, R. 1982a. The phylogeny and evolution of the crocodilians (2). Kaiyoh To Seibutsu (Aquabiology) 4:227-231.
- . 1982b. The phylogenetic significance of osteoderms in the recent eusuchians. Ryoossei Hityurui Kenkyushi 22:13-20.
- Brazaitis, P. 1974. The identification of living crocodilians. Zoologica (NY) 58:59-97.
- Campbell, G. and A.L. Winterbotham. 1985. Jaws, too: the natural history of crocodilians with emphasis on Sanibel Island's alligators. Sutherland Publ. Co., Fort Myers, Florida.
- Carvalho A.L. de. 1951. Os jacarés do Brasil. Arq. Mus. Nac. Rio de Janeiro 42:127-139 + 7 pls.
- Cuvier, G. 1807. Sur les différentes espèces de crocodiles vivants et sur leurs caractères distinctifs. Ann. Mus. Natl. Hist. Nat. Paris 10: 8-86.
- Duméril, A.M.C. and G. Bibron. 1836. Erpétologie générale ou histoire naturelle complète des reptiles, vol. 3. Librairie Encyclopédique de Roret, Paris.
- Fuchs, K. 1974. Die Krokodilhaut. Eduard Roether Verlag, Darmstadt.
- Gray, J.E. 1844. Catalogue of the tortoises, crocodiles, and amphibians in the collection of the British Museum. Trustees of the British Museum, London.
- . 1862. A synopsis of the species of alligators. Ann. Mag. Nat. Hist. Ser. 3, 10:327-331.
- Hoogmoed, M.S. and U. Grüber. 1983. Spix and Wagler type specimens of reptiles and amphibians in the natural history museum in Munich (Germany) and Leiden (The Netherlands). Spixiana Suppl. 9:319-415.
- King, F.W. and P. Brazaitis. 1971. Species identification of commercial crocodilian skins. Zoologica (NY) 56:15-70.
- Magnusson, W.E. 1985. Habitat selection, parasites and injuries in Amazonian crocodilians. Amazoniana 9:193-204.
- . 1989. *Paleosuchus*, p. 101-109. In Crocodiles: their ecology, management and conservation. Proceedings of the 8th working meeting of IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- . 1992. *Paleosuchus trigonatus*. Cat. Amer. Amphib. Rept.:555.1-555.3.
- , E.V. da Silva, and A.P. Lima. 1987. Diets of Amazonian crocodilians. J. Herpetol. 21:85-95.
- Medem, F.J. 1958. The crocodilian Genus *Paleosuchus*. Fieldiana Zool. 39:227-247.
- . 1967. El género *Paleosuchus* en Amazonia. Atas Simp. Biota Amazônica 3 (Limnologia):141-162.
- . 1971. The reproduction of the Dwarf Caiman, *Paleosuchus palpebrosus*, p. 159-165. In Crocodiles: proceedings of the 1st working meeting of the Crocodile Specialist Group. Vol. I. IUCN Publ. New Ser., Suppl. Pap. No. 17, Morges, Switzerland.
- . 1981. Los Crocodylia de Sur América, vol. 1. Los Crocodylia de Colombia. Ed. Carrera 7a Ltda. Bogota.
- . 1983. Los Crocodylia de Sur América, vol. 2. Venezuela-Trinidad-Tobago-Guyana-Suriname-Guyana Francesa-Ecuador-Peru-Bolivia-Brasil-Paraguay-Argentina-Uruguay. Ed. Carrera 7a Ltda. Bogota.
- Merrem, B. 1820. Versuch eines Systems der Amphibien. Johann Christian Krieger, Marburg.
- Mertens, H. 1964. Das Verhältnis zwischen Kopf-, Rumpf- und Schwanzlänge bei den rezenten Krokodilen. Senck. Biol. 45:369-385.
- Mertens, R. 1943. Die Rezenten Krokodile des Natur-Museums Senckenberg. Senckenbergiana 26:252-312.
- Mook, C.C. and G.E. Mook. 1940. Some problems in crocodilian nomenclature. Amer. Mus. Novitates (1098):1-10.
- Müller, L. 1924. Beiträge zur Osteologie der rezenten Krokodiler. Z. Morph. Ökol. Tiere 2:427-460.
- Natterer, J. von. 1841. Beitrag zur näheren Kenntnis der südamerikanischen Alligatoren, nach gemeinschaftlichen Untersuchungen mit L.J. Fitzinger. Ann. naturhist. Mus. Wien 2:313-324.
- Palmedo, J. and X. Desmier. 1989. Jacare: le diable noir de l'enfer vert. Terre Sauvage 25:80-87.
- Paolilla, A. and S. Gorzula. 1985. *Paleosuchus palpebrosus* (Dwarf caiman) migration. Herpetol. Rev. 16:27.
- Romer, A.S. 1956. Osteology of the Reptilia. Univ. Chicago Press, Chicago, Illinois.
- Ross, C.A. and W.E. Magnusson. 1989. Living crocodiles, p. 58-73. In C.A. Ross (ed.), Crocodiles and alligators. Facts on File, Inc., New York.
- Ross, F.D. and G.C. Mayer. 1983. On the dorsal armor of the Crocodilia, p. 305-331. In A.G.J. Rhodin and K. Miyata (eds.), Advances in herpetology and evolutionary biology. Mus. Comp. Zool., Cambridge, Massachusetts.
- Schmidt, K.P. 1928. Notes on South American caimans. Publ. Field Mus. Nat. Hist. (Zool. Ser.) 12:205-231.
- Seba, A. 1734. Locupletissimi rerum naturalium thesauri accurata descriptio et iconibus artificiosissimi expressio, per universam physices historian, vol. 1. Janssonio Waesbergius, Amstelædami.
- Spix, J.B. 1825. Animalia nova size species novae lacertarum, quas in itinere per Brasiliam annis MDCCCXXVII-MDCCCXXX jussu et auspiciis Maximiliani Josephi I. Bavariae Regis suscepto collegit et descripsit Dr J.B. de Spix. T.O. Weigel, Lipsiae.
- Steel, R. 1973. Crocodylia, Teil 16, p. 1-116. In O. Kuhn (ed.), Handbuch der Paläoherpetologie. Gustav Fischer Verlag, Stuttgart.
- Tiedemann, F., M. Oppel, and J. Liboschitz. 1817. Naturgeschichte der Amphibien. Erstes Heft. Gattung Krokodil. Joseph Engelman, Heidelberg.
- Vaillant, L. 1898. Contribution à l'étude des émydosauriens catalogue raisonné des *Jacaretinga* et *Alligator* de la collection du musée. Nouv. Arch. Mus. Natl. Hist. Nat. Paris, Ser. 3, 10:143-212 + 13 pls.
- Wagler, J. 1830. Natürliches System der Amphibien, mit vorangehender Klassifikation der Säugtiere und Vögel. J.G. Cotta, München.
- Webb, G.J.W., S.C. Manolis, and P.J. Whithead (eds.). 1987. Wildlife management: crocodiles and alligators. Surrey Beatty and Sons. Chipping Norton, N.S.W.
- Wermuth, H. 1953. Systematik der rezenten Krokodile. Mitt. zool. Mus. Berlin 29:375-514.
- and K. Fuchs. 1938a. Identification key to crocodile families, code A-306.000.000.003; identification key to Alligatoridae genera, code A-306.001.000.001; identification key to Alligatoridae species, code A-306.001.000.002; and *Melanosuchus niger*, code A-306.001.003.001. In P. Dollinger (ed.), CITES identification manual, vol. 3: Reptilia, Amphibia and Pisces. CITES Secr. Conv. and IUCN, Lausanne, Switzerland.
- and —. 1983b. Identification key to crocodile families (leather), appendix 2: *Paleosuchus* spp., code L-306.001.004.000. CITES identification manual vol. 5: parts and derivatives II. CITES Secr. Conv. and IUCN, Gland, Switzerland.
- Werner, F. 1933. Reptilia, Loricata. Das Tierreich. Walter de Gruyter & Co., Berlin.

William E. Magnusson, Depto de Ecologia, INPA, CP 478, 69011 Manaus, AM, Brasil.

Primary editors for this account, F. Wayne King and I. Lehr Brisbin, Jr.

Published 30 November 1992 and Copyright © 1992 by the Society for the Study of Amphibians and Reptiles.